

Domamid A1-004-V40-N

Polyamide 6, medium viscosity, 40% glass fiber reinforced, natural

Properties	Unit	Test method	Value
General Properties			
Density	g/cm ³	ISO 1183/A	1.45
Ash content (650°C)	%	ISO 3451	40
Viscosity number (sulfuric acid)	cm ³ /g	ISO 307	145
Melt Volume Flow Rate - MVR (275°C/ 5 kg)	cm ³ /10 min	ISO 1133	25
Moisture absorption (23°C/50% RH, 24 h)	%	ISO R 62	0.1
Water absorption (23°C, 24 h in water)	%	ISO R 62	1.0
Moulding shrinkage (between 16-72 hrs, 23°C, 50% RH)			
length	%	ISO 2577	-
width	%	ISO 2577	-
Mechanical properties (Dry as Molded)			
Tensile modulus of elasticity (v = 1 mm/min)	MPa	ISO 527-1A	12000
Tensile yield stress (v = 5 mm/min)	MPa	ISO 527-1A	-
Tensile yield strain (v = 5 mm/min)	%	ISO 527-1A	-
Tensile stress at break (v = 5 mm/min)	MPa	ISO 527-1A	200
Tensile strain at break (v = 5 mm/min)	%	ISO 527-1A	3.0
Flexural modulus (v = 5 mm/min)	MPa	ISO 178	10000
Flexural strength (v = 5 mm/min)	MPa	ISO 178	310
Charpy impact strength notched			
+ 23°C	kJ/m ²	ISO 179/1eA	18
- 30°C	kJ/m ²	ISO 179/1eA	13
Charpy impact strength unnotched			
+ 23°C	kJ/m ²	ISO 179/1eU	105
- 30°C	kJ/m ²	ISO 179/1eU	80
Ball indentation hardness	N/mm ²	ISO 2039-1	217
Thermal properties			
Melting point, DSC	°C	ISO 11357-1	221
Heat deflection temperature:			
- HDT/A (1.8 MPa)	°C	ISO 75-2	210
- HDT/B (0.45 MPa)	°C	ISO 75-2	220
Vicat softening temperature:			
- VST/A/50 (10N)	°C	ISO 306	217
- VST/B/50 (50N)	°C	ISO 306	214
Burning Behaviour			
Burning rate (FMVSS302) 2mm	mm/min	ISO 3795	23
Glow wire temperature 2mm	°C	VDE 0471-2	700
Glow wire temperature 3 mm	°C	VDE 0471-2	700
Flammability UL 94, thickness 1.5 mm		UL 94	HB
Flammability UL 94, thickness 3.0 mm		UL 94	HB
Electrical properties			
Volume resistivity	Ohm.cm	VDE 0303-3	10 ¹⁵
Surface resistivity	Ohm	VDE 0303-3	10 ¹⁵

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